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A PROSPECTIVE, RANDOMIZED STUDY OF THE EFFECTIVENESS OF AROMATHERAPY FOR RELIEF OF POSTOPERATIVE NAUSEA AND VOMITING

Hodge, N., Pierce, R., McCarthy, M., Feider, L., Center for Nursing Science and Clinical Inquiry, and Sumner, C., Medical-Surgical Nursing Unit

BACKGROUND

Postoperative nausea and vomiting (PONV) is the number one concern for patients having surgery under general anesthesia; it causes subjective distress, along with increased complications and delays in hospital discharge. Aromatherapy represents an alternative and complementary therapy for the management of PONV.

PURPOSE

To study the effectiveness of aromatherapy for PONV in postoperative patients admitted to the surgical unit for at least 24 hours.

METHODS

A prospective, randomized two-group design with the treatment group receiving an aromatic inhaler (QueaseEASE®) and the control group receiving a placebo inhaler. Patients were recruited from the Surgical Services Center, enrolled 1-5 days prior to surgery, and received the study intervention with the first complaint of nausea. The self-administered inhaler was used as an immediate treatment for nausea. Patients completed two Likert-type scales rating nausea at baseline after three minutes, and questionnaires addressing satisfaction with nausea treatment and perceived effectiveness of aromatherapy.

RESULTS

Of 339 enrolled patients, 121 patients experienced PONV; 25 patients were lost to attrition. A change score was computed for the initial and follow-up nausea assessment scores. Nausea scores in both the treatment group and the placebo group decreased significantly, $p < .01$ and $p < .01$ respectively, and there was a significant difference between the two groups, $p = .03$. Satisfaction with overall management of PONV was high regardless of group. Perceived effectiveness of aromatherapy was significantly higher in the treatment group, $p = .02$.

IMPLICATIONS

Aromatherapy was favorably received by most patients and represents an effective treatment option for postoperative nausea.

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St. Jude Children's Research Hospital
ALSAC • Danny Thomas, Founder

THE IMPLEMENTATION OF AROMATHERAPY INTO THE PEDIATRIC ONCOLOGY SETTING: AN EVIDENCE-BASED INITIATIVE

Melinda Burks BSN, RN, CPHON, Tara Chambers MSN, RN, Heather Bradley BA, RN, Kristy Gibbons MS, RD, CSP, CSO, LDN, Emily Browne, DNP, RN, CPNP

INTRODUCTION

Aromatherapy is the therapeutic use of essential oils from plants to support and balance the mind, body, and spirit to improve quality of life and increase well-being.

Pediatric oncology patients experience multiple distressing symptoms and side effects from their disease and treatment.

Aromatherapy can complement conventional treatment by reducing or eliminating side effects such as nausea, vomiting and anxiety.

The objective of this project is to assess the satisfaction and feasibility of implementing aromatherapy in the pediatric oncology setting.

METHODS

During a 3-month pilot program, patients in the Nursing Surgical Services Procedures Department with symptoms of nausea, vomiting, and/or anxiety were offered the QueaseEASE® aromatic inhaler (n=39). Patients were excluded if they were younger than two years of age, had a history of asthma, current respiratory symptoms, perfume sensitivity, or essential oil allergies.

The nurse educated the patient/parent and dispensed the product for patient self-administration.

Nurses and patients or parents completed evaluations at the time of initial administration. Satisfaction and feasibility were assessed and general comments were solicited.

Two weeks later, the patient or parent received a follow-up phone call to assess ongoing use and satisfaction.

The views expressed are those of the authors and do not reflect the official policy of the Department of the Army, the Department of Defense or the U.S. Government. Madigan Army Medical Center, Bldg 9040 Jackson Avenue Tacoma, WA 98431 • (253) 968-1110 • DSN: 782-1110

RESULTS

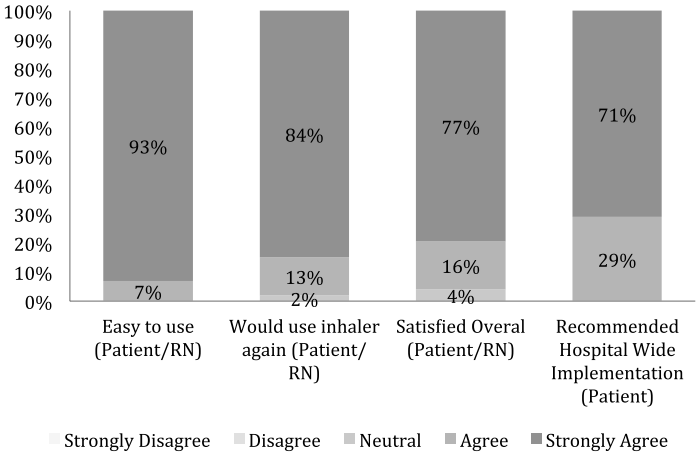


Figure 1. Results of satisfaction survey distributed to patients/families (n= 39) and nurses (n=25).

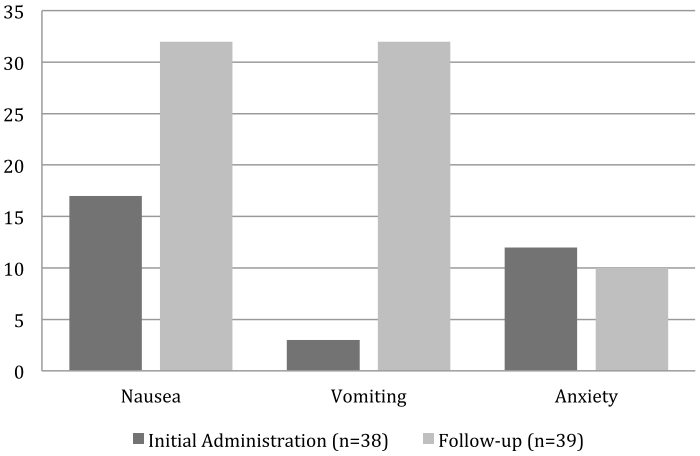


Figure 2. Types of symptoms triggering aromatherapy use at the time of initial administration and during the follow-up period.

CONCLUSIONS

Aromatherapy usage can decrease the need for medications and improve a patient's quality of life and general feeling of well-being.

Aromatherapy is a feasible intervention, resulting in highly-satisfied patients, parents, and nurses. It is recommended that it be available hospital-wide.

COMMENTS FROM PATIENTS AND PARENTS REGARDING ONGOING AROMATIC INHALER USE

13-year-old patient: "QueaseEASE® is easy to use and stops nausea fast."

Mother of 15-year-old patient with Down Syndrome: "He likes to smell the QueaseEASE® and it has helped to decrease his nausea and vomiting from chemo. He is able to use it himself and even got it out of my bag and put it on his pillow. It seems to help him relax."

Mother of 7-year-old patient: "QueaseEASE® has helped decrease her anxiety with port access and also helps with nausea from chemo. I really like the fact that she can use the QueaseEASE® and it is not a medication but a natural product."

Mother of 13-year-old patient: "QueaseEASE® has really helped to decrease his anxiety with port access and also prior to procedures under anesthesia. He no longer needs to take Ativan before his port is accessed."

There were no financial relationships with commercial interests. Partial funding for this project was provided by a grant from the St. Jude Division of Nursing Research and EBP Council. We would like to acknowledge Nancy West, MSN, RN, CCRP, for her assistance with data entry and Michelle Haimes, MSN, RN, NE-BC, for her support of this project.

Floyd Memorial Foundation

THE EFFICACY OF AROMATHERAPY IN THE TREATMENT OF POST-DISCHARGE NAUSEA IN PATIENTS UNDERGOING OUTPATIENT ABDOMINAL SURGERY

Laura Mcilvoy, PhD, RN, CCRN, CNRN, Linda Richmer, BSN, RN, CPAN, Deborah Kramer, ASN, RN, Rita Jackson, BSN, RN, Leslee Shaffer, BSN, RN, Jeffrey Lawrence, MSN, RN, CNOR, Kevin Inman, MSN, RN, CNE

INTRODUCTION/PROBLEM

Post-discharge nausea (PDN) is a common complication after surgery with reported incidence rates as high as 35-50%. When nausea occurs post-discharge, patients attempt remedies that are ineffective or take prescribed antiemetics that can have detrimental side effects.

PURPOSE

The purpose of this study was to explore the effectiveness of the aromatherapy product QueaseEASE® for decreasing post-discharge nausea (PDN) in patients undergoing outpatient abdominal surgery.

DESIGN

Prospective exploratory study.

METHOD

Informed consent was obtained preoperatively from a convenience sample of adult patients scheduled for outpatient abdominal surgery procedures. Prior to discharge, subjects were instructed in the use of QueaseEASE® and given instructions on how to rate their nausea on a 0-10 scale. They recorded a nausea score when they experienced nausea, then again 3 minutes after using QueaseEASE®. A study nurse called subjects the next day to collect the information.

FINDINGS

The sample included 70 outpatients who underwent abdominal surgery. Twenty-five participants (36%) reported experiencing PDN and their concomitant use of QueaseEASE®. There was a significant difference in mean age of those reporting PDN (37 years) versus those without nausea (48 years, P 5 .004) as well as a significant difference in mean intravenous fluid intake during hospitalization of those reporting PDN (1,310 mL) versus those without nausea (1,511 mL, P 5 .04). The PDN group had more female participants (72% vs 42%, P 5 .02), more participants that were less than 50 years of age (84% vs 53%, P 5 .02), and received more opioids (100% vs 76%, P 5 .006) than the no nausea group.

The 25 PDN participants reported 47 episodes of PDN in which they used 15.

QueaseEASE®. For all of the 47 PDN episodes experienced, participants reported a decrease in nausea scale (0 to 10) after the use of QueaseEASE®; for 22 (47%) of the PDN episodes experienced, a nausea scale of 0 after using QueaseEASE® was reported. The mean decrease in nausea scale for all 25 participants was 4.78 (62.12) after using QueaseEASE®.

CONCLUSIONS/DISCUSSION

This study found that the aromatherapy QueaseEASE® was an effective treatment of PDN in select same-day abdominal surgery patients. Every subject that used QueaseEASE® for PDN reported some level of relief from the nausea and in half of all the PDN episodes, the nausea was completely eliminated. This study was limited by a small sample size and lack of a control group. As PDN occurs in approximately one-third of outpatient surgeries and the number of same-day surgeries continues to increase, more research is needed to identify effective self-care strategies for patients who suffer from this debilitating complication.

Mother of 13-year-old patient: "QueaseEASE® has really helped to decrease his anxiety with port access and also prior to procedures under anesthesia. He no longer needs to take Ativan before his port is accessed."

IMPLICATIONS FOR PRACTICE AND RESEARCH

Aromatherapy is an effective and practical treatment for PDN. Research should focus on the effectiveness of aromatherapy in Phase I and II recovery.

NON-MEDICINAL TREATMENT OF POSTOPERATIVE NAUSEA AND VOMITING

Jennifer Francis, RN, Lynn Truscott, RN

INTRODUCTION

CHH Short Stay recognized that PONV was a challenge with day stay patients. IV medication used to treat PONV is sedating, making it difficult to discharge patients.

METHOD

ASPAN has recognized postoperative and post-discharge nausea and vomiting (PONV/PDNV) as one of the most commonly occurring postoperative complications, frequently resulting in prolonged postoperative stay, unanticipated admissions and increased health care costs.

RESULTS

CHH Short Stay conducted a small trial study with QueaseEASE®. We found 85% of patients were satisfied and had total relief of nausea. We plan to continue conducting an evidence-based nurse practice study to implement the use of QueaseEASE®. Data collection will be obtained through Epic and postoperative phone calls.

QueaseEASE® FINAL CALCULATIONS

Sandy Rotsted BSN, RN

RESULTS

61 – Total QueaseEASE® Used.

10 – Not used according to protocol (i.e. Preoperative or as second-line antiemetic in PACU) so eliminated from all study results.

17 of the 51 study patients – Needed further tx for nausea (33%).

3.45 – Average relief in PACU after QueaseEASE® of the 51 study patients (on scale of 1 to 5, with 5 being the highest).

3.43 – Average relief at discharge after all tx of the 51 study patients (on scale of 1 to 5, with 5 being the highest).

POSTOPERATIVE CALLS

36 of the 51 test cases were reached postoperatively (70%).

3.83 – "Did QueaseEASE® provide you any relief from nausea after surgery?" - perception at postoperative call (on scale of 1 to 5, with 5 being the highest).

17 of the 36 reached by phone continued to use QueaseEASE® postoperatively (47%) (Note: many did not continue to use the QueaseEASE® because they did not need it).

31 of the 36 reached by phone would like to receive QueaseEASE® if they had surgery again (86%).

31 of the 36 reached by phone would recommend QueaseEASE® to others (86%).

35 of the 36 were satisfied with treatment they received for nausea (97%).

Scripps

SCRIPPS CLINIC DETERMINES IF QUEASEEASE® IS CLINICALLY ACCEPTABLE

Ambulatory Surgery Center Post Operative RN's

NOTES

On 3/6/13 - Dr. Lynam, "Can I have more QueaseEASE® for my LandD patients. The patients love it and it has worked very well."

PRODUCT EVALUATION PURPOSE

To determine if the product is clinically acceptable.

RESULTS

62% of patients had relief from their nausea after using QueaseEASE® Most nurses and patients found it easy to use. Average patient rating: 4.5 out of 5.

Ambulatory Surgery Center Postoperative RN's

DEMOGRAPHICS

Product used on 20 patients (2 male, 18 female)
Mean age = 41.2 years

PROCEDURES

1 Gastro / Colonoscopy 1 Tubal
1 I&D Hematoma
2 Lap Chol's
2 Orif Ankle
2 LAVH
2 Hemorrhoidectomy
1 Lesion Removal 2 I&D Rectal Abscess 2 Lap Appy
1 C-Section
1 Hysteroscopy
1 Lap Removal Ovary 1 DHS Hip

RESULTS

50% - Total Relief from Nausea
40% - Some Relief from Nausea
10% - No Help with Nausea

CONCLUSION

The product is hand-held so it can be immediately available to the patient. It was well received with our patients and had a favorable outcome. This product was also used on Med/Surg, OB, ER and SCU on 19 occasions during the month. A product like this is needed as an adjunct therapy.

Of the two patients that reported no improvement with nausea, neither received any nausea medications intra/op.

No patients refused to trial the product.

PATIENT COMMENTS

"I loved QueaseEASE®. I thought it was great. I used it again when I got home."

"I took it home and used it the first and second day and it helped."

University of Colorado Hospital
UNIVERSITY OF COLORADO HEALTH

UNIVERSITY OF COLORADO HOSPITAL ANSCHUTZ OUTPATIENT SURGERY DEPARTMENT POSTOPERATIVE NAUSEA VOMITING AROMATHERAPY PROJECT

Debra Malone BSN, RN, CAPA

PURPOSE

The purpose of this quality improvement study was to compare the patient and provider's satisfaction with isopropyl alcohol to QueaseEASE® aromatherapy in reducing PONV. A secondary outcome was to evaluate differences in PACU stay times between patients that were given isopropyl alcohol to inhale versus patients given QueaseEASE® aromatherapy to inhale.

METHODS

The design of this project is descriptive and exploratory.

This project was a quality improvement project that evaluated aromatherapy as a complementary therapy for the management of PONV. The team consisted of Anschutz Outpatient Pre-Operative and Post-Anesthesia Care Unit (AOP Pre/PACU) nurses. All participants were postoperative outpatients with PONV in the AOP PACU. The sample size was 100 patients with PONV. The study was conducted from November 2014 to March 2015.

The patients were all treated with traditional treatment modalities. All the patients received aromatherapy as a complementary therapy modality. The first 50 patients with PONV in the above time period received isopropyl alcohol pads to inhale, and the next 50 patients with PONV received a QueaseEASE® to inhale.

At discharge, the outpatients were sent home with their assigned aromatherapy and instructions on how to use at home if needed. They were also informed they would be asked to rate the helpfulness of the aromatherapy in treating their PONV during their postoperative discharge phone call. The QueaseEASE® pad lasts for 8 hours. An isopropyl alcohol pad dries out in approximately one hour, therefore, additional isopropyl pads were sent home for participants in the isopropyl alcohol group.

During the postoperative follow up phone call, the patient was asked the helpfulness of the aromatherapy in reducing their PONV using a 1-5 scale (with 1 being least helpful, and 5 extremely helpful). Comments were also collected, as well as PACU minutes, gender, age, and type of surgery. At the end of the collection period, the nurses used the same 1-5 scale to rate

their overall experience of the helpfulness of using the aromatherapy as a complementary treatment for PONV. Comments were also collected.

RESULTS

N=50. The average score of the isopropyl alcohol pad patient group was 2.54. 16 patients rated it at 1 (least helpful), 7 patients rated it at 2 (slightly helpful), 16 patients rated it at 3 (somewhat helpful), 6 patients rated it at 4 (very helpful), and 5 patients rated it at 5 (extremely helpful).

N=50. The average score of the QueaseEASE® patient group was 3.7. 5 patients rated it at 1 (least helpful), 4 patients rated it at 2 (slightly helpful), 16 patients rated it at 3 (somewhat helpful), 3 patients rated it at 4 (very helpful), and 12 patients rate it at 5 (extremely helpful).

The nurses' overall satisfaction score for the QueaseEASE® product was 4.1. 0 nurses rate it at 1 (least helpful), 0 nurses rated it at 2 (slightly helpful), one nurse rated it at 1 (somewhat helpful), 11 nurses rated it at 4 (very helpful), and three nurses rated it at 5 (extremely helpful).

The nurses' overall satisfaction score for the QueaseEASE® product was 4.1. No nurses rated it at 1 (least helpful), no nurses rated it at 2 (slightly helpful), one nurse rated it at 1 (somewhat helpful), 11 nurses rated it at 4 (very helpful), and three nurses rated it at 5 (extremely helpful).

There were no differences in PACU times. The average time for the isopropyl alcohol group was 159 minutes. The average time for the QueaseEASE® group was 156 minutes.

Patients' ages ranged from 16-72. The average patient age was 45. Of the 100 patients with PONV, 69 were female and 31 were male. Of the 100 patients with PONV, 42 had orthopedic surgery, 26 had ENT surgery, 16 had gynecology surgery, and 15 had a variety of general surgeries.

DISCUSSION

The PONV Aromatherapy Study confirms the majority of both the patient and the nurses felt aromatherapy was somewhat to extremely helpful as a treatment modality for PONV. Satisfaction with the QueaseEASE® by patients was higher (3.7) than with isopropyl alcohol (2.54). The nurses' satisfaction with QueaseEASE® in reducing patients' PONV was higher (4.1) than with the isopropyl alcohol pads (2.8). No differences were found between the standard of care group (isopropyl alcohol) and the evidence-based practice group (QueaseEASE®) for the time spent in PACU.

This study did not show any numerical difference in PACU times between the two aromatherapies. It is important to acknowledge other variables that affect PACU times. For instance, pain levels, oxygen saturation levels, sedation levels, the nurse's workload, the patient's motivation, transportation arrangements, can all affect the amount of time patients stay in the PACU. How or if these variables contribute to PACU times may be explored in future projects on complementary modalities.

It is well-documented in the literature that women have a higher incidence of PONV and this study's results were consistent with this finding. No inferential testing was performed, as this study was a pilot study collecting descriptive data. Further analysis will need to be performed in the future to determine any statistical significance in group differences.

The largest surgical procedure group with PONV in the study consisted of patients undergoing orthopedic procedures. Orthopedic surgeries may have been a larger percentage of our total surgical procedures during the study period. Further study in our department should examine if we are giving those undergoing orthopedic procedures effective prophylactic treatment for PONV compared to those undergoing different types of procedures, such as gynecology patients, whom literature has shown has a higher incidence of PONV.

Further study is needed to examine if aromatherapy reduces the amount of antiemetic medications administered in the PACU. A reduced use of antiemetic medication could impact health care expenses and decrease unwanted side effects of these medications.

IMPLICATIONS

This quality improvement project demonstrated that both the patients and the nurses were more satisfied with the QueaseEASE® product in treating and managing PONV in comparison to the current standard of care of using an isopropyl alcohol pad. The evidence-based approach using QueaseEASE® during this project shows promise in reducing PONV among our patients.

Several different units in the hospital have also shown an interest in obtaining this product to help comfort their patients. Many hospitals, including local hospitals, are now offering patients more complementary therapies. Patients at the University of Colorado Hospital may expect to have selections such as aromatherapy offered to them during their stay as well.

HOUSTON Methodist LEADING MEDICINE

AROMATHERAPY: A NON-PHARMACOLOGICAL INTERVENTION FOR POSTOPERATIVE NAUSEA AND VOMITING IN THE PACU

Ronald M. Malit BSN, RN, CPANN, CAPA and Paschale Dorismond-Parks BSN, RN, CPAN • Houston Methodist Sugarland Hospital

INTRODUCTION/PROBLEM

Unavailability of non-pharmaceutical therapy for PONV in Houston Methodist Sugar Land Hospital.

PURPOSE

To improve management of PONV in the immediate postoperative period and 24 hours post-discharge.

FINDINGS

Between September and October 2015, a total of 43 subjects were included in the EBP project.

Results showed aromatherapy was more effective in treating mild nausea than moderate nausea and was not able to totally relieve severe nausea.

Subjects who did not achieve total relief from nausea had 3+ Apfel risk score of PONV.

Among subjects, only 40% required antiemetics, decreasing usage by 60% when compared to past practice.

Limitations: Low incidence of PONV among subjects.

A survey of all AOD and PACU nurses suggest that aromatherapy was easy to use, beneficial for the patient, and 100% recommended inclusion to the multi-modal therapy for PONV.

Favorable results of this EBP project promoted continued use of aromatherapy on AOD patients with PONV in the PACU.

Implementation on patients start on November 2015.

FUTURE ACTIONS

Further studies to assess the effect of aromatherapy on clinically meaningful outcomes (i.e. patient satisfaction relating to comfort, length of hospital stay and its applicability in other areas).

THE QUEEN'S MEDICAL CENTER

QUEENS MEDICAL CENTER STUDY: QUEASEEASE® USE IN PHASE I RECOVERY

Wendy Hunter, RN

PRODUCT EVALUATION PURPOSE

To determine if the product is clinically acceptable.

RESULTS

There was a 15-minute decrease in PACU Phase I time with the use of QueaseEASE® as well as a 37% decrease in Phenergan use and over 50% decrease in Kytril use.

82% of patients felt that the QueaseEASE® tabs helped relieve their nausea.

Deaconess

A COMPARISON OF AROMATHERAPY TO STANDARD CARE FOR RELIEF OF PONV AND PDNV IN AMBULATORY SURGICAL PATIENTS

Lois M. Stallings-Welden, DNP, RN, CNS, Mary Doerner, MSN, RN, CPAN, CAPA, Elizabeth (Libby) Ketchem, MS, BSN, RN, CWS, NE-BC, Laura Benkert, BSN, RN, CAPA, Susan Alka, RN, Jonathan D. Stallings, PhD

PURPOSE

To determine effectiveness of aromatherapy (AT) compared with standard care (SC) for postoperative and post-discharge nausea and vomiting (PONV/PDNV) in ambulatory surgical patients.

DESIGN

Prospective randomized study.

METHODS

Patients (n = 254) received either SC or AT for PONV and interviewed for effectiveness of PDNV. Machine learning methods (eight algorithms) were used to evaluate.

FINDINGS

Of patients (64 of 221) that experienced PONV, 52% were in the AT group and 48% in the SC group. The majority were satisfied with treatment (timely, P 5 .60; effectiveness, P 5 .86). Of patients that experienced PDNV, treatment was 100% effective in the AT group and 67% in the SC group.

All (100%) patients with PDNV in the AT group indicated that the AT was effective in relieving their nausea.

CONCLUSIONS

AT is an effective way to manage PONV/PDNV.

Lowell General Hospital

LOWELL GENERAL HOSPITAL: RESEARCH AROMATHERAPY AS AN ADJUNCT TREATMENT FOR POSTOPERATIVE NAUSEA AND VOMITING (PONV) RELIEF

Primary Investigator: Mary Carroll RN CAPA CNOR, Co-investigators: Laurie McManus RN BSN, co- investigator, Amanda Uglietta Rn BSN Lowell General Hospital, Statistician: Yuan Zhang, PhD, RN, Assistant Professor, School of Nursing, UMass Low

SUMMARY OF FINDINGS

QueaseEASE effectiveness in treating nausea received an average 9.0 rating (on a scale of 0-10).

68% of the participants who used QueaseEASE rated product effectiveness at 10.

80% of participants reported that QueaseEASE took away nausea completely.

It took an average of 7.6 mins for QueaseEASE (ranging from 1 - 30 minutes) to reduce nausea, compared to an average of 66.8 mins for standard medication (35 - 128 minutes).

QueaseEASE users reported a 5.7 reduction on nausea rating, compared to an average of 2.4 reduction on nausea rating in the standard medication group.

QUANTITATIVE FINDINGS

A total of 82 participants were randomly assigned to one of two groups: a green bracelet group consisting of 55 participants (using the QueaseEASE nausea management inhaler for those who experienced postoperative nausea) and a white bracelet group of 27 participants, who were given standard medication in the event of postoperative nausea.

Twenty-five members of the green bracelet group reported postoperative nausea. Among the 27 white bracelet participants, 22 did not report postoperative nausea, and therefore did not receive any special care.

Based on the 25 green bracelet (QueaseEASE) participants versus the 5 white bracelet (standard care) participants, baseline comparisons between the two groups are listed below:.

Variables	QueaseEASE Group (n=25) Mean ± SD or Percentage	Medication Group (n=5) Mean ± SD or Percentage
Age	46.1±12.9	43±15.4
Gender	88%	80%
History of PONV	40%	40%
History of Motion Sickness	44%	40%
Smoking	16%	0%
Anethesia Duration (mins)	90.2±69.8	68.4±36.0
PACU Length	77.8±32.1	84.2±20.6
SDC Length	115.2±50.4	118.2±35.4

DESCRIPTIVE ANALYSES

An independent sample t-test suggested that the QueaseEASE group and the standard medication group showed no significant differences related to age, gender, previous history of PONV, history of motion sickness, smoking, anesthesia duration, or duration in the PACU (based on 95% confidence, $p>0.05$).

From a rating of 0-10, QueaseEASE effectiveness in the hospital received an average 9.0 rating with a standard deviation of 1.4, with 68% of the participants rating QueaseEASE effectiveness at 10.

100% of participants reported that they felt QueaseEASE was beneficial.

80% of participants reported that QueaseEASE took away the nausea completely. 20% reported that QueaseEASE helped somewhat, but still felt slightly nauseated.

QueaseEASE effectiveness for post-discharge nausea and vomiting (participants who used QueaseEASE at home) showed an average rating of 9.6 with a standard deviation of 0.8, with 72% of the participants rating QueaseEASE post-discharge effectiveness at a 10.

BIVARIATE ANALYSES

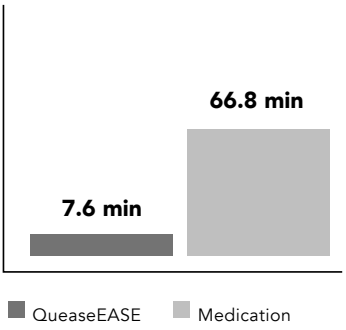
(1) An independent sample t-test suggested that QueaseEASE produced significantly faster effects in treating nausea compared to standard medication ($t = 7.81$, $p < 0.001$).

It took an average of 7.6 mins for QueaseEASE (ranging from 1 min to 30 mins) to reduce nausea, compared to an average of 66.8 mins for standard medication (ranging from 35 mins to 128 mins).

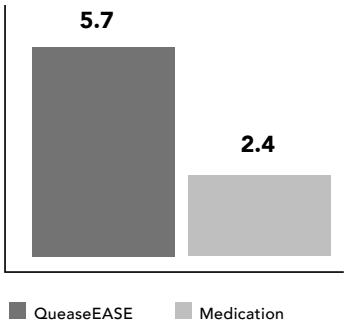
(2) An independent sample t-test suggested that QueaseEASE produced significantly stronger results in reducing nausea compared to standard medication ($t = 3.36$, $p < 0.01$).

The study showed an average of 5.7 reduction on nausea rating in the QueaseEASE group (responses ranging from 2-10) compared to an average of 2.4 reduction on nausea rating in the standard medication group (responses ranging from 1-5).

How long does it take to reduce nausea in minutes?



What is the reduction on nausea rating?



Sutter Health
Alta Bates Summit Medical Center

TRIAL TO EVALUATE THE EFFECTIVENESS OF AROMATHERAPY AS AN ALTERNATIVE TREATMENT FOR PONV IN PACU AND SAME DAY SURGERY

Team Leaders: Patricia Crosby, RN, BSN, MA, CCRN, CPAN, Staff Nurse IV, Luvimin Rzepiela, RN, BSN, CAPA, Staff Nurse III

BACKGROUND INFORMATION

Postoperative nausea and vomiting (PONV) is a major concern for patients having surgery under general anesthesia causing subjective distress, along with increased complications and delays in hospital discharge.

Even after receiving antiemetic medications during the surgical procedure, the patient can emerge from anesthesia with c/o PONV or after administration of pain medication. Repeated doses of antiemetics in PACU do not always bring adequate relief. Upon admission to Same Day Surgery (SDS) the patient can experience renewed or onset nausea with change in position or ambulation.

Knowledge of a convenient, cost-effective aromatherapy product used at other facilities prompts further research and a request for permission to conduct a trial of the product. The goal of the trial is to determine the product's effectiveness for future purchase as an adjunctive therapy for PONV.

OBJECTIVES OF PROJECT

The perioperative nurse will gain a greater understanding of how aromatherapy can be a valuable alternative therapy in relieving patients' discomfort in the treatment of PONV.

The patient will understand the ease of use, convenience, and benefits of the aromatherapy product.

Use of the product will enable the patients a sense of control over their condition, improving their experience and expediting their recovery.

PROCESS OF IMPLEMENTATION

Prior to the initiation of the trial an in service educates staff in both SDS and PACU about the product, its use, safety, and benefits.

Staff is instructed on the importance of filling out the survey form for adequate evaluation. The survey evaluation form identifies the following: gender, age, type of surgery, use in therapy, ease of use for both patient and nurse, patient satisfaction, and how product was used, i.e. only, before IV/other antiemetics,

or after IV/other antiemetics.

A trial of five weeks duration to evaluate the aromatherapy product in PACU/SDS is initiated on February 12, 2016 and ends on March 11, 2016.

Study and evaluation of the survey forms with input from staff and team leaders.

Due to favorable results the product is purchased by the medical center for use in PACU/SDS.

STATEMENT OF SUCCESSFUL PRACTICE

The use of aromatherapy in PACU/SDS proves highly successful as an adjunctive therapy for PONV. With a group of 23 participants the combined results of PACU/SDS conclude that the product is very effective with 70% relief of nausea and 74% patients liked the product.

Ease of use and convenience of the product is demonstrated by patients and nurses with 100% satisfaction.

The aromatherapy product aids in meeting discharge criteria of the patient postoperative nausea.

IMPLICATIONS FOR ADVANCING THE PRACTICE OF PERIANESTHESIA NURSING

Greater knowledge of adjunctive aapproaches for the treatment of PONV.

Use of nurse-driven protocol to identify and improve patient care and satisfaction.

PROVIDENCE St. Patrick Hospital

EVALUATING THE EFFECTIVENESS OF AROMATHERAPY TO DECREASE THE AMOUNT OF ANTI-EMETIC USED IN THE TREATMENT OF PONV IN PACU

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BACKGROUND INFORMATION

Despite the use of conventional pharmaceutical treatment modalities prophylactically, postoperative nausea and vomiting (PONV) continues to be a problem in the PACU. Mission Hospital's RN staff were introduced to an aromatherapy product specifically meant to decrease PONV at a recent conference. Moreover, staff were interested in using treatment modalities that did not require a physician's order. Since stewardship is a priority and the introduction of new products in practice is highly scrutinized, we were interested in evaluating if there was a decrease in the use of antiemetics when the aromatherapy was utilized in our own PACU.

OBJECTIVES OF PROJECT

To evaluate the use of aromatherapy to decrease use of antiemetic medications and decrease our patients experience of PONV and to determine the financial impact of aromatherapy.

PROCESS OF IMPLEMENTATION

The literature review indicated that aromatherapy has had positive effect on decreasing PONV. The policy for use of aromatherapy was updated. The use of QueaseEase (QE) was discussed at our unit based shared governance meeting in March 2017. A poster presentation describing the use of QE was provided in our break room. The questionnaire about the use of QE for patients was stapled to each QE quick pack dispenser. Our nurses were encouraged to use the QE for patients experiencing PONV and fill out the questionnaire provided to collect data about the effectiveness of QE in reducing the use of anti-emetic and the patient's experience. The QE is in our bedside cart next to the alcohol swabs.

STATEMENT OF SUCCESSFUL PRACTICE

The results indicate that in a sample of 52 patients, 15 patients did not require the use of additional anti-emetics. This is a $750 savings in this sample of patients. In total, 86% of our patients felt that the QE was beneficial.

IMPLICATIONS FOR ADVANCING THE PRACTICE OF PERIANESTHESIA NURSING

QE is an effective alternative to antiemetics for almost half of the postoperative patients who used it. Plan to get administration support to be able to offer aromatherapy after the trial is completed.

NON-PHARMACOLOGICAL OPTION FOR SELF-ADMINISTERED NAUSEA RELIEF IN THE PEDIATRIC ED ESSENTIAL OIL BLEND AROMATIC INHALER (EOBAI)(AI)

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PURPOSE

Our staff wanted to offer a non-pharmacological option for nausea that is self-administered/controlled, nurse directed without continued nursing supervision, and has no limit /maximum use/frequency. Although QueaseEASE (QE) is widely used in labor/delivery, adult PACU, and adult/pediatric HemOnc areas; QueaseEASE has little previous use in pediatric or adult emergency departments.

DESIGN

The staff developed project compared standard pharmacological nausea relief usage before and after patients' self-directed use of QueaseEASE. Cost analysis and patient satisfaction were trended.

SETTING

The study occurred in the public academic health center/research university level one trauma center pediatric emergency department.

PARTICIPANTS/SUBJECTS

Inclusion criteria: Any patient 2yrs and older that has not received Zofran within 30 minutes of presentation complaining of nausea. Exclusion criteria: Any mechanical or obstructive pathophysiology (appendicitis, bowel obstruction, intussusception etc.).

METHODS

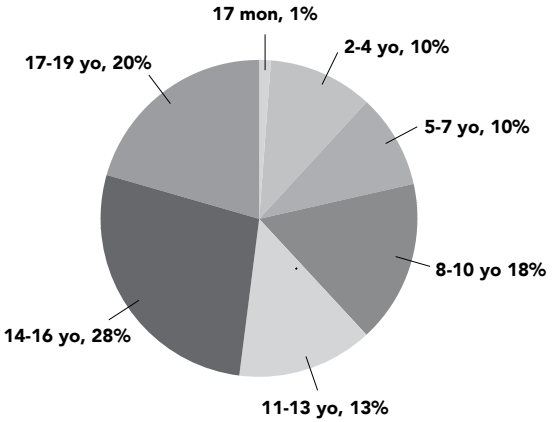
After obtaining verbal consent from the patient/family, QueaseEASE is demonstrated by the staff member. QueaseEASE is left with the patient /family to self-administer. Patients, families or staff may halt the trial at any time. If no resolution of nausea occurs within 30 minutes, other measures are offered. Staff (RN) and patient/family (PT) complete a survey after the trial is completed or stopped. Utilization review of standard treatments were noted before and after the study.

RESULTS/OUTCOMES

40 cases total: males 38%, females 62%; Shifts: days 45%, evenings 40%, nights 15%.

Ages: 17months (per mother's request)-1, 2-4yo-10%, 5-7yo-10%, 8-10yo-18%, 11-13yo-13%, 14-16yo-28%, 17-19yo-20%. Chief complaints: Neuro: syncope, HA, TBI, CHI; Cardiac/Resp: asthma, CP, CF, pneumonia, pneumothorax; GI/GU: abd pain, kidney stones, DM, constipation, IUP, menses, ovarian cyst, UC, C diff complications; ENT: eye pain, sore throat; Musculoskeletal/skin: fractures, abscess; Other: HemOnc port concerns, drug/alcohol ingestions, anxiety, suicide gestures/ideation, depression.

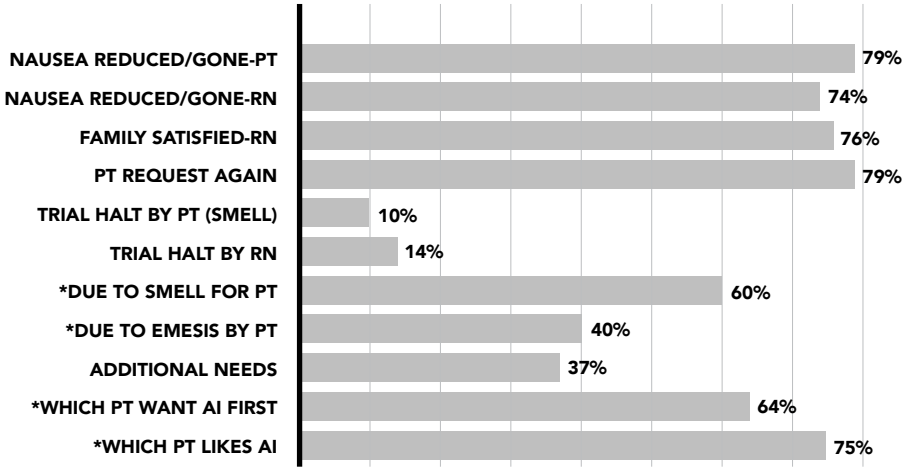
AGES



Results of surveys (RN=nurse response, PT=patient/family response): Nausea reduced/eliminated 74% RN, 79% PT; Family satisfied 76% RN; Trial stopped at family request 10% (due to smell); Trial stopped due to nursing judgement 14% (60% patient not like the smell, 40% patient started vomiting); Additional interventions required 37% (Of which 75% patients still satisfied with QE, Of which 64% patients would still request QE first); Zofran/IVF 36%, Ativan 14%, Narcotic or pain med14%, IVF alone 28%, other antiemetic 7%; Patient would request QE again 79%PT (NOTE: not all survey questions were answered by all patients-percentages are from the answers given -so spreads are not always100%).

DOERNBECHER CHILDREN'S HOSPITALH CONTINUED

RESPONSES



IMPLICATIONS

Due to our small daily census (30-50) and exclusion criteria, the sample size is small (40) and over a 2-3month period. Girls were enrolled twice as often as boys. Teens were enrolled twice as often as school age. One 17mo was included per mom's request due to her concurrent use of home essential oils during the triage. In spite of our small sample size, we had a broad representation of pediatric emergency department chief complaints. Overall patients and families were very satisfied with QueaseEASE (76%) and would request it again (79%). A year after QueaseEASE was approved for use in the pediatric emergency department, QueaseEASE is still frequently offered to school age and older patients with nausea and stress/anxiety related issues.

PROVIDENCE St. Patrick Hospital

AROMATHERAPY TREATMENT FOR POSTOPERATIVE NAUSEA

Aromatherapy for First-Line Postoperative Nausea and Vomiting Treatment in the Post-Anesthetic Care Unit
Michelle Leiby and Katie Trottier, Providence St. Patrick Hospital

BACKGROUND

Postoperative nausea and vomiting (PONV) is one of the most common postoperative complications, affecting 20-30% of patients (Abib-Hajbaghery & Hosseini, 2015). Poorly managed PONV can lead to complications beyond the discomfort of nausea and vomiting, including dehydration, electrolyte balance changes, wound dehiscence, and aspiration (Hodge, McCarty, & Pierce, 2014). The standard of practice for treating patients who became nauseated in the St. Patrick Hospital Post-Anesthesia Care Unit (PACU) was to give them a pharmaceutical treatment. These pharmaceutical treatmentsalso pose risks to patients due to some side effects, which include, fatigue, disorientation, dysrhythmias, hypotension, and restlessness (Abib-Hajbaghery & Hosseini, 2015). Another recent complication of antiemetic use is access and availability, due to medication shortages and a patient safety goal of limiting the use of Phenergan. It was this risk awareness that motivated one of the nurses in the St. Patrick Hospital PACU to attend a session on the use of Aromatherapy for PONV in the PACU during the 2018 Magnet Conference. After learning about the ease and potential benefit of this non-pharmacological treatment for PONV, a practice change study was initiated to make aromatherapy a first-line treatment for nausea in the PACU, to reduce the need for pharmacological antiemetics.

The project started with a review of the American Society of PeriAnesthesia Nurses (ASPAN) guidelines, and it was found that aromatherapy was included as a nausea intervention option. After establishing aromatherapy as an accepted standard ofcare, a literature review was completed. Eight articles were reviewed, and an evidentiary table was made (see Appendix A). Adata review of antiemetic use for patients in the PACU was also performed to determine how frequently antiemetics were used in the PACU over 6 months (May-November 2018). It was found that of 2,120 patient seen in the PACU, 139 received nausea medication. All patients who complained of nausea received pharmacological treatment.

LITERATURE REVIEW

A literature review was completed to find the effectiveness of aromatherapy on PONV. Eight articles were reviewed and evaluated for strength (see Appendix A). All of the articles reviewed were either randomized controled trials or quasi-experimental studies. All studies reported that no patients experienced increased or worsened nauseaafter treatment, and patient satisfaction was reported as higher with aromatherapy. Anderson & Gross (2004) found that while there was no statistically significant difference in patient nausea rating between those whoreceived either aromatherapy, alcohol, or saline scented gauze, the patientswho received aromatherapy had very high satisfaction scores with an average of 88 on a scale of 100. These results led Anderson & Gross (2004) to recommend aromatherapy as a first-line treatment for nausea.

Hunt et al. (2013) also studied different forms of aromatherapy. They had four different groups, ginger only scented gauze, blended scented gauze (ginger, spearmint, peppermint and cardamom), alcohol-scented gauze, and salinegauze (Hunt et al., 2013). The results of their findings showed that blended scents were the most effective in treating nausea, with 82.4% finding relief versus 67.1% who inhaled a single scent (Hunt et al., 2013). Hunt et al. (2013) thus recommended blended scents over single scents.

The Brown, Danda & Fahey's (2018) trial also used a blended aroma product of orange and peppermint scents. They found that after treatment with aromatherapy, 48% of the patients had no nausea, with 70% reporting an improved nausea rating (Brown et al., 2018). These results led Brown et al. (2018) to also recommend blended aromatherapy as a treatment for PONV.

IMPLEMENTATION

After completing the literature review and finding support for out suggested change of using aromatherapy as a first-line PONV treatment, a practice change study was performed. The process started with getting samples from QueaseEASE, an essential oil-based aromatherapy product that contains peppermint, spearmint, ginger, and lavender. This product was chosen for the following reasons: it was developed by a nurse anesthetist specifically for PONV, it was a blended scent, and was found to be more effective through the literature review. The Soothing Scents company, who distributes QueaseEASE,

donated 100 QuickTABS for this study. With the product in hand, the process for its use was developed. This started with the development of a scale for nausea from 0-4, 0 was 'no nausea', 1 'mild nausea', 2 'moderate nausea with vomiting', 3 'frequent vomiting', and 4 'continuous vomiting'. Once a patient would complain of nausea, the nurse would have them rate their nausea on this scale and then administer the aromatherapy. This was done by removing the foil from the QuickTAB and placing it under the patient's nose then instructing them to take deep breaths in through their nose and out through their mouths. The aromatherapy would be used for five minutes, then the patient's nausea would be reassessed. If the nausea had not improved to the patient's satisfaction, an antiemetic could be offered at that time. The patient's nausea level would continue to be assessed every 15 minutes until discharge or complete resolution of their nausea. Next, a data collection tool was developed that included risk factors for PONV using the Apfel score. The Apfel score is from 0-4 with a point assigned for every risk factor the patient meets. These factors are female sex, history of motion sickness or PONV, non-smoker, and postoperative opioid treatment. The data collection tool also included patient satisfaction of the treatment they received for their nausea, and if an antiemetic was used. After the development of the data collection sheet and having the product in place the project was presented to the St. Patrick Hospital Institutional Review Board (IRB). Once the IRB approved aromatherapy as an evidence-based practice change study, the aromatherapy project was presented to the surgical services unit-based council for approval. In January of 2019, education was provided to the PACU staff on aromatherapy and how to use the QueaseEASE QuickTAB. An extra data collection sheet was also developed that had additional instruction for staff to assist them in data collecting. The trial began on February 4, 2019. By May, the QuickTAB supply had been used and data collection began.

RESULTS

After compiling all of the datasheets, it was found that either the product was used with no collection sheet filled out or other departments had used some of the QuickTABs. This resulted in there being 65 datasheets after the use of 100 tabs. With the population scored, 28.13% (18 patients) required additional

antiemetics. This is a large drop from 100% of patients previously receiving antiemetics for nausea. The study also concluded that 93.75% (60 patients) were satisfied with their treatment.

This includes patients for whom the aromatherapy was not effective, 83.9% still found the aromatherapy to be beneficial. From these results, a nurse care guideline was developed for using aromatherapy as a first-line treatment for nausea. Approval for purchasing was also made through St. Patrick Hospital, with plans for QueaseEASE QuickTABs to be stocked inthe PACU.

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PACU DEPARTMENT POSTOPERATIVE NAUSEA AND VOMITING AROMATHERAPY TRIAL

TEAM LEADERS: Sarah Todd, BSN, RN, Lisa Haas, BSN, RN
DATA ANALYSIS: Dean McCann, Data Consultant, Perioperative Services

October 2019 -In a trial conducted by Kaiser Permanente Fontana Medical Center results revealed 67% of patients did not require additional antiemetics after administering QueaseEASE in the PACU setting and 100% of the trial participants stated they found QueaseEASE to be beneficial.

BACKGROUND

Quality improvement projects have shown that aromatherapy can be used as an adjunct modality to decrease self-reported nausea and discharge delays (Brown, Danda, & Fahey, 2018).

SETTING

A no-cost trial of QueaseEASE was held in the main PACU from October 7th to November 8th, 2019.

PARTICIPANTS

QueaseEASE QuickTAB was available for PACU nurses to use any time they felt it would be beneficial to the patient. During this time period, 58 patients used QueaseEASE and we received a data collection form from the patients. Of the respondents, 79.3% were female, 51.7% had a history of PONV and/or motion sickness, 10.3% had a history of smoking and 32.8% had a history of anxiety.

RESULTS

Of the 58 patients who used QueaseEASE, 67% of them did not require additional antiemetics. During this trial, 100 percent of the patients stated that they felt QueaseEASE was beneficial even if it had no effect on nausea. Subjective data from the data collection forms related to relief of postoperative nausea and vomiting were that 72.4% said it completely resolved their nausea; 15.5% said it was helpful, but still had some nausea; 10.3% said it gave them minor relief but still felt nauseated and 1.7% said it had no effect on nausea. QueaseEASE accomplished what was hoped it would do as evidenced by every patient who used it, felt that it was beneficial. Two-thirds of patients who used QueaseEASE needed no additional antiemetics and even if the patient did require additional antiemetics, they still felt that QueaseEASE was beneficial and 87.9% of patients who used it felt it reduced their nausea.

DISCUSSION

Safety/Cost: By using QueaseEASE, we will decrease our use of other antiemetics. Ondansetron costs between $0.50 and $0.60/vial and has side effects of increasing the QT interval, stomach pain, dizziness, drowsiness, and the risk of serotonin syndrome (Lexicomp, 2019). Another antiemetic used frequently in the PACU that we can reduce or eliminate the use of with QueaseEASE is Metoclopramide. One dose of metoclopramide is $1.00-2.00 (per Clarissa D. Lopez, Pharm.D.). Metoclopramide has a black box warning with cumulative use of tardive dyskinesia and has the side effects of drowsiness, fatigue, and restlessness (Lexicomp, 2019).

Reduced Length of Stay: Our trial demonstrated a reduction in PACU I and II time. The 32 outpatients who used QueaseEASE showed a 22% reduction in PACU II length of stay and of the 20 inpatients, 46% of the inpatients had a lesser PACU I time.

Patient Experience of Care: The clinical benefit to improving experience of care is demonstrated by overwhelming patient satisfaction with 100% of patients stating QueaseEASE was beneficial. The QuickTAB is effective for 72 hours which provides the patient continued self-management of queasiness throughout the PACU, Phase II and post discharge timeframe to alleviate discomfort from hospital to home. Patient satisfaction scores will be monitored to see if there were any changes during the month of the trial.

CONCLUSION

The QueaseEASE product is a safe and effective non-pharmacological method to reduce postoperative nausea and vomiting. With 100% patient satisfaction and almost 90% reduction of nausea and/or vomiting, there is enough value for our patients to bring this product on permanently. It is all natural and drug free. It does not need a doctor's order and is for use by anyone, regardless of age or medical condition. The Quick Tab is designed for patient safety and is fully recyclable and BPA free. This product is used at other Kaiser facilities and over 1,000 other hospitals and clinics.

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